ENDOCYTE

The future of precision medicine

PSMA-617 License Transaction

October 2, 2017

Forward Looking Statements

ENDOCYTE

Certain of the statements made in this presentation are forward looking, such as those, among others, relating to future spending, future cash balances, future use of capital, the timing of initiation and completion of clinical trials, the enrollment period for, and availability and reporting, of data from ongoing and future clinical trials, the successful completion of clinical trials, estimates of the potential market opportunity for the company's product candidates, and the company's future development plans including those relating to the completion of pre-clinical development in preparation for possible future clinical trials and those relating to future IND filings. Actual results or developments may differ materially from those projected or implied in these forward-looking statements. Factors that may cause such a difference include risks that the company or independent investigators may experience delays in the initiation and completion of clinical trials (whether caused by competition, adverse events, patient enrollment rates, shortage of clinical trial materials, regulatory issues or other factors); risks that data from prior clinical trials may not be indicative of subsequent clinical trial results; risks related to the safety and efficacy of the company's product candidates; risks that early stage pre-clinical data may not be indicative of subsequent data when expanded to additional pre-clinical models or to subsequent clinical data; risks that evolving competitive activity and intellectual property landscape may impair the company's ability to capture value for the technology; risks that expectations and estimates turn out to be incorrect, including estimates of the potential markets for the company's product candidates, estimates of the capacity of manufacturing and other facilities required to support its product candidates, projected cash needs, and expected future revenues, operations, expenditures and cash position. More information about the risks and uncertainties faced by Endocyte, Inc. is contained in the company's periodic reports filed with the Securities and Exchange Commission. Endocyte, Inc. disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

Transformative transaction accelerates path to commercialization

ENDOCYTE

1. Significant patient need addressing $1Bn+ market opportunity
2. First in class targeted agent with high response rates
3. Strong strategic fit

Operational Strategy

Highly-focused near-term with long-term upside

ENDOCYTE

Near-Term Focus

- Radioligand Therapy (RLT)
  - ^{177}Lu-PSMA-617 Phase 3 study in metastatic castration-resistant prostate cancer (mCRPC)
- CAR-T (Adaptor Controlled)
  - Phase 1 proof-of-concept (PoC) in osteosarcoma

Long-Term Opportunities

- Radioligand Therapy (RLT)
  - ^{177}Lu-PSMA-617 New Indication(s) in Earlier Lines of mCRPC Therapy
  - PSMA-617 – New Targets and/or Isotopes for New Indications
- CAR-T (Adaptor Controlled)
  - New CAR-T adaptor molecules (e.g. CAIX)
  - Additional solid tumors

A Transformative Transaction
Transaction Details

ENDOCYTE

- Endocyte has licensed exclusive worldwide rights to develop and commercialize PSMA-617 from ABX GmbH (ABX). Consideration includes:
  - $12M upfront payment to ABX
  - 2 million shares of Endocyte common stock issued to ABX at closing
  - Warrant to purchase up to 4 million shares of Endocyte common stock issued to ABX at closing
  - $160M in potential regulatory and commercial milestones
  - Tiered royalties to ABX starting in mid-teens
- Endocyte will be responsible for 100% of future development expenses
- Hart-Scott-Rodino regulatory pre-approval has been obtained and the transaction is closed
- Endocyte year-end 2017 cash balance revised to >$90M

^{177}Lu-PSMA-617 Addresses Significant Unmet Need in the Prostate Cancer Market

ENDOCYTE

Prostate Cancer Market Opportunity

- 300,000 men die annually from metastatic castration-resistant prostate cancer (mCRPC)
  - ~100,000 in seven major markets of which ~80,000 are PSMA positive; a $5Bn market at prices near comparative therapy
- Despite advances in therapies, which often slow the disease, patients who progress are left with limited treatment options
- Once metastasized, prostate cancer is nearly always lethal

^{177}Lu-PSMA-617

- ^{177}Lu-PSMA-617 pairs a PSMA targeting ligand (PSMA-617) to a radioactive isotope (^{177}Lu)
- The targeting ligand binds to PSMA expressed on diseased cells and releases an energetic beta particle that results in lethal radiation killing the cancer cell
- ^{177}Lu-PSMA-617 was developed at DKFZ and University Hospital Heidelberg
- ~20 peer reviewed publications in the post-chemotherapy compassionate use setting, highlight ^{177}Lu-PSMA-617's consistent meaningful PSA response (>50% decline from baseline) in 40% to 60% of patients, and a RECIST response rate in soft tissue disease of between 40% and 50%.

On September 29, 2017, ABX GmbH and Endocyte, Inc entered into an exclusive global licensing agreement whereby Endocyte will develop and commercialize PSMA-617

^{177}Lu-PSMA-617: Retrospective Data Analysis

German Multi-Center Study in 145 mCRPC patients

ENDOCYTE

- Study included all patients with PSMA positive disease without regard to potential presence of PSMA negative disease
- Serial PSA levels for analyzing responses were available in 99 of 145 patients
- After the first therapy cycle, a PSA decline of ≥ 50% occurred in 40 of 99 patients (40%)
- After the second therapy cycle, a PSA decline of ≥ 50% occurred in 35 of 61 patients (57%)

German Multicenter Study Investigating ^{177}Lu-PSMA-617 Radioligand Therapy in Advanced Prostate Cancer Patients

Kambiz Rahbar, Hojjat Ahmadzadehfar, Clemens Kratochwil, Uwe Haberkorn, Michael Schäfers, Markus Essler, Richard P. Baum, Harshad R. Kulkarni, Matthias Schmidt, Alexander Drzezga, Peter Bartenstein, Andreas Pfestroff, Markus Luster, Ulf Lützen, Marlies Marx, Vikas Prasad, Winfried Brenner, Alexander Heinzel, Felix M. Mottaghy, Juri Ruf, Philipp Tobias Meyer, Martin Heuschkel, Maria Eveslage, Martin Bögemann, Wolfgang Peter Fendler and Bernd Joachim Krause

J Nucl Med. 2017;58:85-90.
Published online: October 20, 2016.
Doi: 10.2967/jnumed.116.183194

THE JOURNAL OF NUCLEAR MEDICINE • Vol. 58 • No. 1 • January 2017

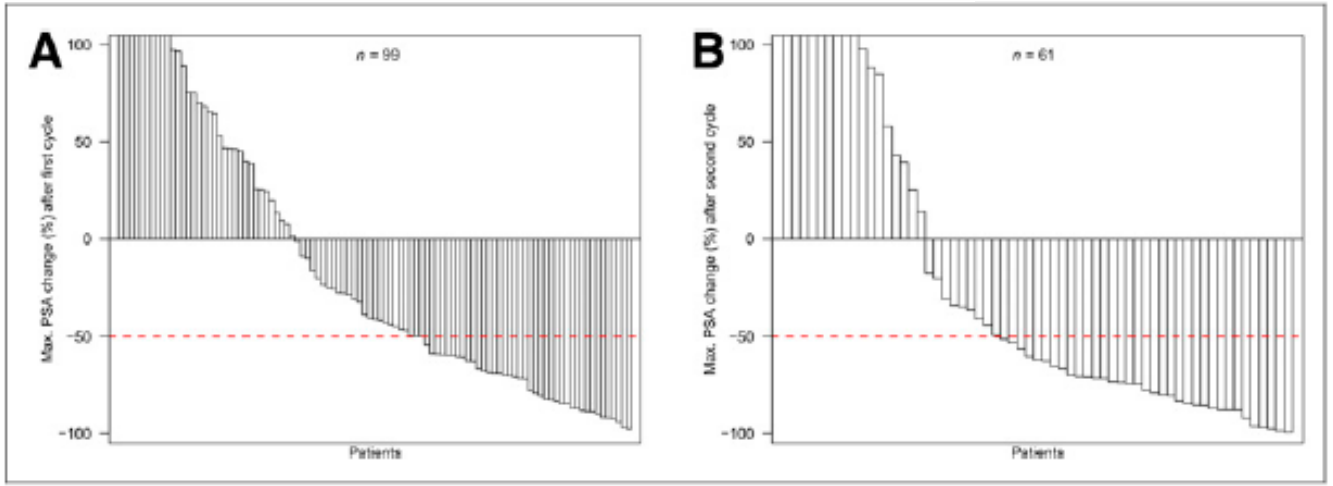


FIGURE 3. Waterfall plots of maximum PSA change (%) after first cycle (A) and after second cycle (B). PSA increase > 100% was cropped due to simplification.

^{177}Lu-PSMA-617: retrospective safety data analysis in mCRPC patients (n = 145)

ENDOCYTE

TABLE 3

Adverse Events After ^{177}Lu-PSMA-617 as Determined by Blood Tests (n = 121) or Physician Reports (n = 145)

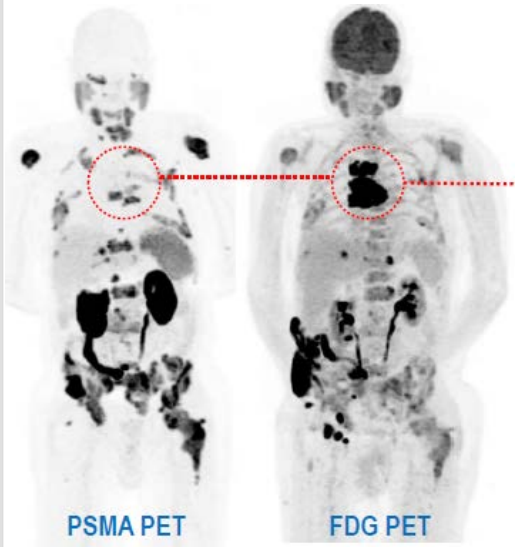
Organ system	Category	Evaluated for N	All grades	Grade 3–4
Blood and lymphatic disorders	Leukopenia	121	48 (40%)	4 (3%)
	Anemia	145	50 (34%)	15 (10%)
	Thrombocytopenia	121	38 (31%)	5 (4%)
Gastrointestinal disorders	AST elevation	121	27 (19%)	0 (0%)
	ALT elevation	121	11 (8%)	0 (0%)
	Xerostomia	145	11 (8%)	0 (0%)
	Nausea	145	9 (6%)	0 (0%)
	Dysgeusia	145	6 (4%)	0 (0%)
	Ascites	145	2 (1%)	0 (0%)
	Biliary obstruction	145	0 (0%)	1 (1%)
General disorders	Fatigue	145	19 (13%)	1 (1%)
	Pain	145	5 (3%)	0 (0%)
	Ileus	145	1 (1%)	0 (0%)
Urinary disorders	Renal failure	121	14 (12%)	0 (0%)
	Urinary tract infection	145	1 (1%)	0 (0%)
Cardiovascular disorders	Edema	145	2 (1%)	0 (0%)
	Lung embolism	145	0 (0%)	3 (2%)
Respiratory, thoracic, and mediastinal disorders	Pleural effusion	145	1 (1%)	0 (0%)
	Dyspnea	145	1 (1%)	0 (0%)
Neurologic disorders	Vertigo	145	1 (1%)	0 (0%)
	Stroke	145	0 (0%)	2 (1%)
Musculoskeletal disorders	Bone facture	145	0 (0%)	3 (2%)

^{177}Lu-PSMA-617: Prospective Clinical Data

Results Presented at ESMO Garner Significant Attention from Investigators[1]

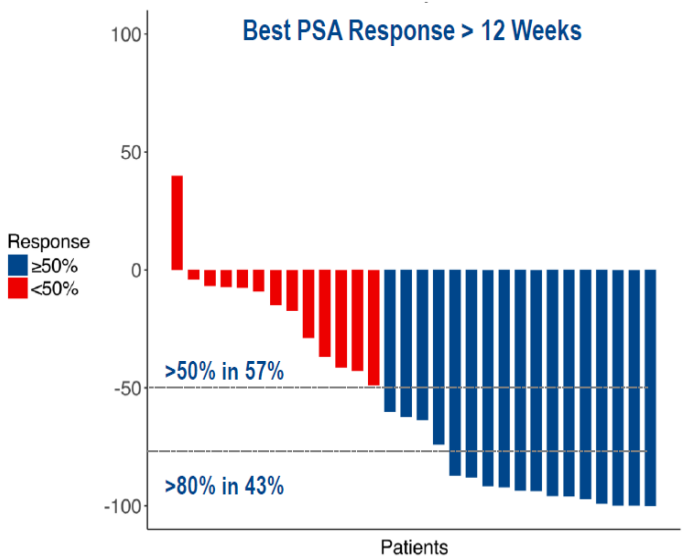
ENDOCYTE

Refined Patient Selection



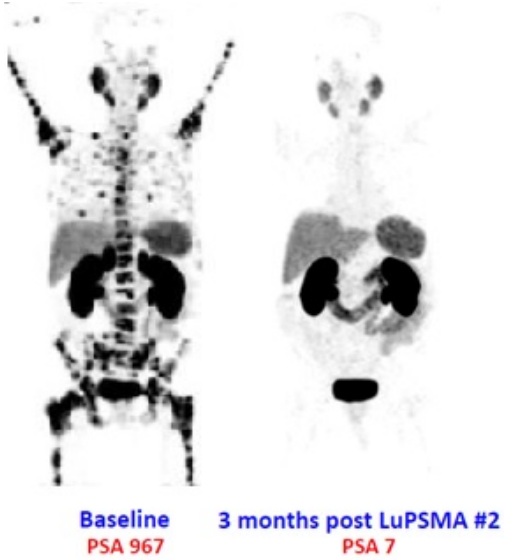
Patient excluded from trial. PSMA negative disease appears on FDG PET and not on PSMA PET.

Driving Response



71% RECIST response (n=17) among patients with soft tissue disease

Post Treatment Scan



PSMA positive disease not visibly detected from follow-up scan.

^{177}Lu-PSMA-617 prospective safety data analysis in mCRPC patients (n = 30)

ENDOCYTE

Low incidence rates of grade 3/4 hematological and non-hematological toxicities attributable to ^{177}Lu-PSMA-617

Non haematological attributable to LuPSMA:

Toxicity	G1/2 (%)	G3/4 (%)
Dry mouth	63	0
Nausea*	50	0
Vomiting*	20	0
Fatigue	17	3
Dry eyes	7	0
Bone pain	7	3
Anorexia	7	0
Infusion related reactions	0	0
Renal toxicity	0	0

Haematoxicity:

Toxicity	G1/2 (%) (baseline)	G1/2 (%) (any cause)	G3/4 (%) (any cause)	G3/4 (%) (LuPSMA)
Haemoglobin	80	73	23	7
Neutrophils**	0	40	10	7
Platelets	17	43	27	13

* transient and self-limiting within first 24 hours
** no episodes of febrile neutropenia

CTCAE version 4: adverse events that occurred within 12 weeks after last injection of LuPSMA, or more than 12 weeks if determined to be related to LuPSMA

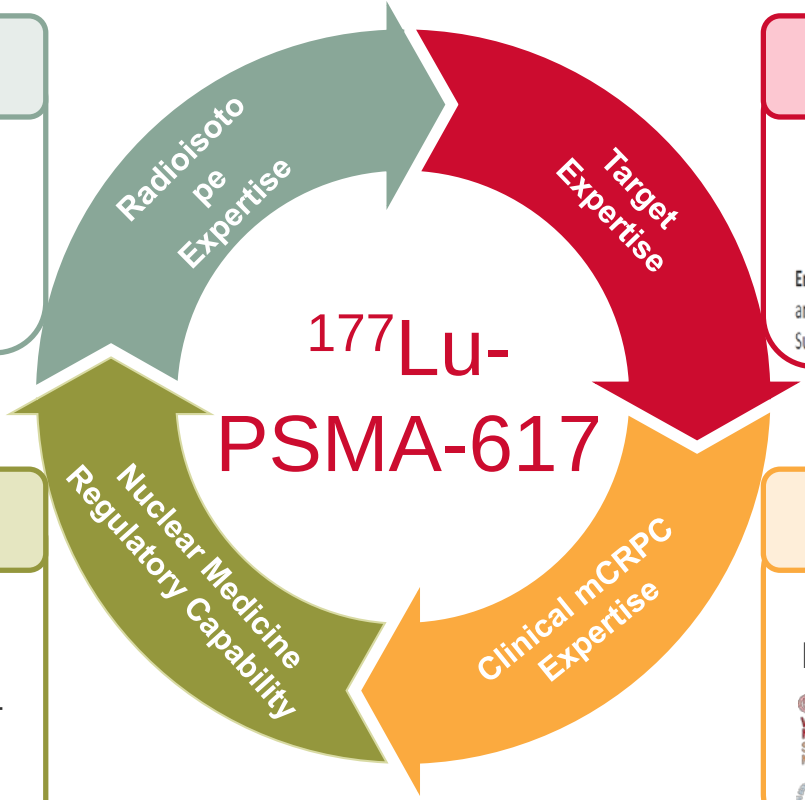
Peter Mac
Peter MacCallum Cancer Centre
Victoria Australia

Development of ^{177}Lu-PSMA-617 will leverage Endocyte's experience and capabilities

ENDOCYTE

ENDOCYTE

Extensive discovery, manufacturing and clinical experience with targeted delivery of radioisotopes



ENDOCYTE

A Leader in PSMA Targeted Therapies

ESMO '17

Endocyte will be presenting updated data from Part B of their Ph 1 study of their anti-PSMA small molecule drug conjugate EC1169 in mCRPC (poster discussion Sunday morning)...

ENDOCYTE

First and Only Company to Receive Positive CHMP Opinion for a Radio-Labeled Companion Imaging Agent

FOLCEPRI

ENDOCYTE

Strong Relationships with Prostate KOLs, Clinical Sites & Investigators

Weill Cornell Medicine Sandra and Edward Meyer Cancer Center

Tulane University Tulane Cancer Center

Memorial Sloan-Kettering Cancer Center

Yale Cancer Center

Potential for Many Firsts….

ENDOCYTE

^{177}Lu-PSMA-617 has the potential to achieve many differentiating 'firsts':

- First targeted radioligand therapy in prostate cancer
- First therapeutic targeting PSMA of any kind
- First ^{177}Lu therapeutic agent in prostate cancer
- First radiotherapy targeting both bone & soft tissue disease in prostate cancer

Our pipeline

ENDOCYTE

Focused development of targeted therapeutics for cancer treatment

PROGRAM	INDICATION	PRECLINICAL	PHASE 1	PHASE 2	PHASE 3	Partners[1]
Radioligand Therapy (RLT)						
^{177}Lu-PSMA-617	mCRPC				1H 2018	
^{225}Ac-PSMA-617	mCRPC		1H 2018			Memorial Sloan Kettering Cancer Center
CAR-T (Adaptor Controlled)						
Fluorescein CAR T-Cell (FITC CAR-T)						
FITC CAR-T + FITC-Folate CAM	Osteosarcoma		2H 2018			Seattle Children's HOSPITAL · RESEARCH · FOUNDATION
FITC CAR-T + FITC-CAMs against various targets	Solid Tumors					PURDUE UNIVERSITY

[1] The work of partner programs is being undertaken by the partner with modest funding from Endocyte. Endocyte's near-term focus is on ^{177}Lu-PSMA-617

Transaction highlights

ENDOCYTE

Positions Endocyte as the Leader in Prostate Cancer Radioligand Therapy (RLT)	• Innovative therapeutic approach to treatment of mCRPC • Meaningful results to date garner attention from investigators and patients • Highly complementary to Endocyte's existing capabilities
$1Bn+ Peak Revenue Opportunity	• Large post-chemotherapy mCRPC market with limited treatments available • ~80,000 PSMA positive patients die annually in 7 major markets; $5Bn market • Well established referral base and understanding of radiotherapy treatment modalities between urologists, medical oncologists and radiologists
Focused Resources	• Endocyte has the focus and ability to fund both priority pipeline assets • Phase 3 registration trial in ^{177}Lu-PSMA-617 • Targeted adaptor controlled CAR-T proof of concept in solid tumors
Significant Long-Term Upside Potential	• ^{177}Lu-PSMA-617 earlier lines of therapy, or different isotope • ^{225}Actinium alpha-emitter isotope w/ MSKCC[1] • CAR-T expansion with adaptors for other solid tumor targets (e.g. NK1R)

[1]Planned Phase 1 sponsored by Memorial Sloan Kettering Cancer Center

ENDOCYTE

The future of precision medicine

PSMA-617 License Transaction

October 2, 2017